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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/170,336	10/13/1998	JOHN STUART BEETESON	UK9-98-026	6676

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IBM CORP
IP LAW DEPT
TJ WATSON RESEARCH CENTER
P O BOX 218
YORKTOWN HEIGHTS, NY 10598

EXAMINER

NGUYEN, KEVIN M

ART UNIT PAPER NUMBER

2674

DATE MAILED: 10/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/170,336

Applicant(s)

BEETESON ET AL.

Examiner

Kevin M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s) _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

1. The response filed on 7/24/2002 is entered. The rejections of claims 1-11 are maintained.
2. Applicants respectfully reiterate the request for withdrawal of the FINAL status of the Office Action dated September 25, 2001 and request a refund of the filing fee of the CPA which was filed on February 25, 2002. Examiner disagrees the request with the following reasons:

Examiner changed the grounds of the rejections because examiner would consider this is a new case. Moreover, applicant further requested for a Continued Prosecution Application (CPA) filed on 2/25/2002 under 37 CFR 1.53(d) based on prior Application No. 09/170,336. Any "conditional" request for a CPA submitted as a separate paper is treated as an unconditional request for a CPA. Accordingly, the request for a CPA application is acceptable and a CPA has been established.

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.129(a) and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.129(a).

3. A request for telephone interview of Anne Dougherty on 7/23/2002 was called, but did not result in an interview being made.

Drawings

4. The corrected or substitute drawings were received on 7/24/2002. These drawings are approved.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art hereinafter AAPA in view of Nakamura et al. (U.S. Patent No. 5,818,403).**

As to claim 1, AAPA teaches a magnetic matrix display which includes a cathode 20 (see figure 1, page 1, lines 16-21). AAPA fails to teach a first plurality of parallel row conductors and a second plurality of parallel column conductors arranged orthogonally to the row conductors; means for providing cut-off correction information to a one of said first of parallel conductors. However, Nakamura teaches an electron beam-generating apparatus which includes electron-emitting devices lines (X1, X2,...) and modulation electrodes (Y1, Y2,...) are arranged to form an XY matrix (or in rows and columns) with the electron-emitting device lines (see figure 1, col. 5, lines 25-29). In the figure 2, the information signal is inputted divisionally at intervals of two rows of modulation electrodes three times. In each time, cut-off signals are inputted to the modulation electrodes to which information signals are not inputted (see col. 6, lines 13-17). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the X and Y driver circuits taught by Nakamura et al for the X and Y driver circuits disclosed in a matrix addressed display device of AAPA because

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this would improve high fineness, high sharpness, and high contrast of the image (col. 2, lines 49-52 of Nakamura et al).

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Nakamura et al as applied to claim 1 above, and further in view of Buzak (US 5,036,317).

As to claim 2, AAPA and Nakamura et al teach all of the claimed limitations of claim 1, except for "means for providing gain correction information to a one of a first plurality of parallel conductors. However, Buzak teaches display system 40 having nine different output amplifiers 86, data driver 88 driving the amplifiers for different single ones of column electrodes 62 (see col. 12, lines 34-39). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the X and Y driver circuits taught by Buzak for the X and Y driver circuits disclosed in a matrix addressed display device of AAPA and Nakamura et al because this would improve a wide range of viewing of angles, high resolution, full gray scale, and good image contrast properties (col. 3, lines 15-17 of Buzak).

8. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Nakamura et al in view of Buzak as applied to claims 2 and 1 above, and further in view of Baldi (US 5,708,451).

As to claim 3, AAPA, Nakamura et al, and Buzak teach all of the claimed limitations of claims 2, 1, except for a nonvolatile memory. However, Baldi teaches a non-volatile memory (see abstract). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the additional non-volatile

memory taught by Baldi for the matrix addressed display device of AAPA's, Nakamura's and Buzak's system because this would store video signal in digital or analog form.

As to claim 4, AAPA teaches the surface of the magnet 60 facing the phosphors 80 (page 1, line 25).

As to claim 5, Buzak teaches amplifiers 86 for different singles ones of column electrodes 62 (col. 12, lines 37-39), grid segment 150 receives an enabling voltage and grid segments 1652 and 154 receive a cut-off voltage, thereby forming electro beam 76' over the set 142 of column electrodes 62 (see col. 12, lines 57-61).

As to claim 6, Baldi teaches pixel's correction factors for compensating long-term decline of luminance due to the phosphors ageing process (abstract).

As to claim 7, AAPA teaches an array of anodes 50 are formed on the surface of magnet 60 facing the phosphor 80. There is a pair of anodes 50 associated with each column of the matrix of pixel well 70 (page 1, lines 24-27). Baldi teaches pixel's correction factors for compensating long-term decline of luminance due to the phosphors ageing process (abstract). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate pixel's correction factors for compensating long term decline of luminance due to the phosphors ageing process taught by Baldi for a matrix addressed display of AAPA's system because this would compensate the nonuniformities of intrinsic luminance characteristics of a field emission type display (col. 5, lines 41-43 of Baldi).

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Nakamura et al in view of Buzak in view of Baldi as applied to claims 6, 3 and 1 above, and further in view of Tanaka et al(US 5,834,900).

As to claim 8, AAPA, Nakamura et al, Buzak, and Baldi teach all of the claimed limitations of claims 6, 3 and 1, except for temperature sensor. However, Tanaka et al teaches a field emission type display (FED) device having a temperature sensor (col. 6, line 31). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the additional temperature sensor taught by Tanaka et al for a matrix addressed display of AAPA's, Nakamura et al's, Buzak's, and Baldi's system because this would prevent a variation in luminance due to an increase in ambient temperature (col. 3, lines 21-22 of Tanaka et al).

10. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Nakamura et al in view of Buzak in view of Baldi as applied to claims 3 and 1 above, and further in view of Tanaka et al (US 5,834,900).

As to claims 9 and 10, AAPA, Nakamura et al, Buzak and Baldi teach all of the claimed limitations of claims 3 and 1, except for cut-off correction information varying according to the physical location of each of a second plurality of parallel conductors. However, Tanaka et al teaches a FED which includes the cathode electrodes with respect to a cut-off voltage are deviated from a set point (see col. 5, lines 60-61), the cathode current is varied (10) with respect the column voltage V_c (see figure 1). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the X and Y driver circuits taught by Tanaka et al for the X and Y driver

circuits disclosed in a matrix addressed display device of AAPA, Nakamura et al, Buzak, and Baldi because this would provide a different voltage of a constant level is held between gate voltage and cathode voltage irrespective of controlling of the drive voltage (col. 3, lines 61-63 of Tanaka et al).

As to claim 11, Tanaka et al teaches the anode current is exponentially varied with respect to the gate voltage (figure 6, col. 5, lines 45-46), and the cathode current is varied (10) with respect the column voltage V_c (see figure 1).

Response to Arguments

11. Applicant's arguments filed 7/24/2002 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case:

In response to applicant's argument that claim 1 recites "means for providing cut-off correction information to a one of said first or said second plurality of parallel conductors." This argument is not persuasive because Nakamura et al's invention teaches "method comprises alternately applying information signals to odd-numbered columns of electrodes while applying cut-off signals to the even-numbered columns of

electrodes, and then signal switching circuit 82 reverses the process to apply information signals to even-numbered columns of electrodes while applying cut-off signals to the odd-numbered columns of electrodes (figure 13, col. 5, line 65 to col. 6, line 5)." Examiner disagrees with this situation because one skill in the art to recognize clearly the cut-off information signals of Nakamura teaching obviates the correction information signals that are being provided to all columns electrodes.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a magnetic matrix display, correction plus drive voltage signals be provided to all of a plurality of columns, see page 6, lines 13-15, or pixel data information (508) see figure 5) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

For these reasons, the rejections based on AAPA, Nakamura et al, Buzak, Baldi, and Tanaka et al have been maintained.

Conclusion

12. This is a continuation of applicant's earlier Application No. 09/170,336. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL**. even though it is a second action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-FRI from 9:00-6:00 with Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

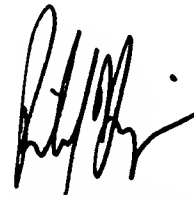
(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen
Examiner
Art Unit 2674



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600